

WHAT IS CLAIMED IS:

- 1 1. A media player and media player interface,
2 the media player comprising:
3 a storage unit for storing media and media related data, said media related data
4 including a selection probability for each item of a plurality of items of said media; and
5 media selection logic, wherein the media selection logic is responsive to said
6 media player interface;
7 the media player interface comprising a trigger mechanism, coupled to the media
8 selection logic, wherein said trigger mechanism enables a user to trigger the selection of
9 media by said media selection logic;
10 the media selection logic configured to:
11 select an item of said media by reference to said media related data; and
12 update said media related data in accordance with the selection of the item of
13 media by the media selection logic.
- 1 2. The media player and media player interface of claim 1, wherein said media player
2 interface is disposed on a unit separate from said media player.
- 1 3. The media player and media player interface of claim 2, wherein the unit is a remote
2 control, said remote control configured to transmit commands from said trigger to said media
3 player.
- 1 4. The media player and media player interface of claim 1, wherein the media selection
2 logic is configured to select an item of media in response to a lapse in time not less than a
3 duration associated with a previously selected item of media.
- 1 5. The media player and media player interface of claim 1, wherein the media selection
2 logic is configured to:
3 determine a duration associated with a first selected item of said media;
4 ascertain an amount of time that lapses between a selection of the first selected item of
5 media and a second selected item of said media; and

adjust by a first amount the selection probability associated with the first selected item of media by reference to a ratio of said duration to said amount of time that lapses.

6. The media player and media player interface of claim 5, wherein said media related data includes descriptive information for each item of said media; and said media selection logic is configured to increase by a second amount the selection probability of a third item of said media having a certain portion of the descriptive information in common with the first selected item of said media.

7. The media player and media player interface of claim 6, wherein said descriptive information comprises media genre information.

8. The media player and media player interface of claim 6, wherein said descriptive information comprises media collection information.

9. The media player and media player interface of claim 6, wherein said descriptive information comprises media creator information.

10. The media player and media player interface of claim 6, wherein said descriptive information comprises media creator information, media collection information, and media genre information; and said media selection logic is configured to size the second amount by reference to which portion of the descriptive information the third item of media has in common with the first selected item of media.

11. The media player and media player interface of claim 10, wherein the second amount is greater when the third item of media has media creator information in common with the first selected item of media than when the third item of media has only a media collection or media genre information in common with the first selected item of media.

1 12. The media player and media player interface of claim 11, wherein the second amount
2 is greater when the third item of media has media collection information in common with the
3 first selected item of media than when the third item of media has only media genre
4 information in common with the first selected item of media.

5 13. The media player and media player interface of claim 5, wherein
6 said media related data includes descriptive information for each item of said media;
7 and
8 said media selection logic is configured to decrease by a second amount the selection
9 probability of a third item of said media not having a certain portion of the descriptive
10 information in common with the first selected item of said media.

1 14. The media player and media player interface of claim 13, wherein said descriptive
2 information comprises media genre information.

1 15. The media player and media player interface of claim 13, wherein said descriptive
2 information comprises media collection information.

1 16. The media player and media player interface of claim 13, wherein said descriptive
2 information comprises media creator information.

1 17. The media player and media player interface of claim 13, wherein said descriptive
2 information comprises media creator information, media collection information, and media
3 genre information; and
4 said media selection logic is configured to size the second amount by reference to
5 which portion of the descriptive information the third item of media has in common with the
6 first selected item of media.

1 18. The media player and media player interface of claim 17, wherein the second amount
2 is greater when the third item of media has media creator information in common with the
3 first selected item of media than when the third item of media has only a media collection or
4 media genre information in common with the first selected item of media.

1 19. The media player and media player interface of claim 18, wherein the second amount
2 is greater when the third item of media has media collection information in common with the
3 first selected item of media than when the third item of media has only media genre
4 information in common with the first selected item of media.

1 20. The media player and media player interface of claim 5, wherein the probability of the
2 first selected item of media being selected again is reduced if the amount of time that lapses is
3 less than the duration associated with the first selected item of media.

1 21. The media player and media player interface of claim 20, wherein a reduction in the
2 selection probability of the first selected item of media corresponds to an extent to which the
3 amount of time that lapses is less than the duration associated with the first selected item of
4 media.

1 22. The media player and media player interface of claim 5, wherein the probability of the
2 first selected item of media being selected again is increased if the amount of time that lapses
3 is not less than the duration associated with the first selected item of media.

1 23. The media player and media player interface of claim 5, wherein the first amount is
2 inversely proportional to a number of times the selection probability of the first selected item
3 of media.

1 24. The media player and media player interface of claim 5, wherein
2 said media selection logic is configured to maintain in said media related data a list
3 including each selected item of said media for which the amount of time that lapses between
4 a selection of said each selected item of said media and a subsequent selection of an item of
5 said media is not less than the duration associated with said each selected item of said media;
6 said media selection logic is configured to:
7 access the list when the amount of time that lapses is not less than the duration
8 associated with the first selected item of media; and

9 select an item of said media, other than the first selected item of media, from
10 the list.

1 25. The media player and media player interface of claim 1, wherein
2 said media selection logic is configured to maintain in said media related data a
3 preferred media list including each selected item of said media meeting predefined selection
4 criteria;
5 said media selection logic is configured to:
6 access the preferred media list when predefined preferred media mode
7 selection criteria are satisfied; and
8 select an item of said media from the preferred media list.

1 26. The media player and media player interface of claim 1, wherein the media selection
2 logic is configured to:
3 sum the selection probabilities for all items of media;
4 generate a random number, said random number falling between first and second
5 values whose difference corresponds to the sum of the selection probabilities for all items of
6 media;
7 repeat the following steps until an item of said media is selected:
8 add the selection probability for an item of said media to a second sum
9 initialized to the first value;
10 compare the second sum to the random number; and
11 select the item of said media if the second sum exceeds the random number.

1 27. The media player and media player interface of claim 1, wherein the media selection
2 logic is configured to:
3 map the items of media to a probability density function, each respective item of
4 media being mapped to a respective interval of said probability density function;
5 generate a random number;
6 determine an interval on said probability density function corresponding the random
7 number, and determining the item of media corresponding to the determined interval.

1 28. The media player and media player interface of claim 1, wherein the items of media
2 include a plurality of recordings of musical compositions.

1 29. The media player and media player interface of claim 1, wherein the media is radio
2 such that an item of said media is a radio station.

1 30. The media player and media player interface of claim 1, wherein the media is
2 television such that an item of said media is a television station.

1 31. The media player and media player interface of claim 1, wherein the media is film
2 such that an item of said media is a movie.

1 32. The media player and media player interface of claim 1, wherein the media selection
2 logic is configured to utilize a media item selection list for an initial selection of an item of
3 said media.

1 33. The media player and media player interface of claim 1, wherein the media selection
2 logic is configured to delete from the storage unit an item of said media for which a
3 probability of a being selected is below a predefined threshold.

1 34. The media player and media player interface of claim 33, wherein
2 the media player includes a communication port, said communication port configured
3 to transfer media and media related data; and
4 said media selection logic is configured to:
5 transfer media related data from the media player via the communication port,
6 said media indicating the probability of selection for each item of said media maintained in
7 the storage unit; and
8 receive in response additional items of media selected in accordance with the
9 transferred media related data.

1 35. The media player and media player interface of claim 34, wherein

the additional items of media are related to items of media that have a high probability of being selected and are already maintained in the storage unit.

36. The media player and media player interface of claim 1, wherein said media selection logic is configured to store a list of recently selected items of media and to select an item of media that is not included in the list of recently selected items of media.

37. A computer program product for use in conjunction with a computer controlled media player, the computer controlled media player capable of executing a procedure, the computer controlled media player including a storage unit for storing media and media related data, the media related data including a selection probability for each item of a plurality of items of said media; the computer program product comprising a computer readable storage medium and a computer program mechanism embedded therein, comprising:

a media selection module, responsive to trigger signals received from an interface of the media player, including:

instructions for selecting items of the media, in response to the trigger signals, by reference to said media related data; and

instructions for updating the media related data in accordance with the selection of the items of media by the media selecting instructions.

38. The computer program product of claim 37, wherein the media selection module includes instructions to:

select an item of media in response to a lapse in time not less than a duration associated with a previously selected item of media.

39. The computer program product of claim 37, wherein the media selection module includes instructions to:

determine a duration associated with a first selected item of said media;

ascertain an amount of time that lapses between a selection of the first selected item of media and a second selected item of said media; and

adjust by a first amount the selection probability associated with the first selected item of media by reference to a ratio of said duration to said amount of time that lapses.

1 40. The computer program product of claim 39, wherein
2 the media related data includes descriptive information for each item of said media;
3 and
4 the media selection module includes instructions to increase by a second amount the
5 selection probability of a third item of said media having a certain portion of the descriptive
6 information in common with the first selected item of said media.

1 41 The computer program product of claim 40, wherein said descriptive information
2 comprises media genre information.

1 42. The computer program product of claim 40, wherein said descriptive information
2 comprises media collection information.

1 43. The computer program product of claim 40, wherein said descriptive information
2 comprises media creator information.

1 44. The computer program product of claim 40, wherein said descriptive information
2 comprises media creator information, media collection information, and media genre
3 information; and
4 the media selection module includes instructions to size the second amount by
5 reference to which portion of the descriptive information the third item of media has in
6 common with the first selected item of media.

1 45. The computer program product of claim 44, wherein the second amount is greater
2 when the third item of media has media creator information in common with the first selected
3 item of media than when the third item of media has only a media collection or media genre
4 information in common with the first selected item of media.

1 46. The computer program product of claim 45, wherein the second amount is greater
2 when the third item of media has media collection information in common with the first

3 selected item of media than when the third item of media has only media genre information in
4 common with the first selected item of media.

5 47. The computer program product of claim 39, wherein
6 the media related data includes descriptive information for each item of said media;
7 and
8 the media selection module includes instructions to decrease by a second amount the
9 selection probability of a third item of said media not having a certain portion of the
10 descriptive information in common with the first selected item of said media.

1 48. The computer program product of claim 47, wherein said descriptive information
2 comprises media genre information.

1 49. The computer program product of claim 47, wherein said descriptive information
2 comprises media collection information.

1 50. The computer program product of claim 47, wherein said descriptive information
2 comprises media creator information.

1 51. The computer program product of claim 47, wherein said descriptive information
2 comprises media creator information, media collection information, and media genre
3 information; and
4 the media selection module includes instructions to size the second amount by
5 reference to which portion of the descriptive information the third item of media has in
6 common with the first selected item of media.

1 52. The computer program product of claim 51, wherein the second amount is greater
2 when the third item of media has media creator information in common with the first selected
3 item of media than when the third item of media has only a media collection or media genre
4 information in common with the first selected item of media.

53. The computer program product of claim 52, wherein the second amount is greater when the third item of media has media collection information in common with the first selected item of media than when the third item of media has only media genre information in common with the first selected item of media.

54. The computer program product of claim 39, wherein the probability of the first selected item of media being selected again is reduced if the amount of time that lapses is less than the duration associated with the first selected item of media.

55. The computer program product of claim 54, wherein a reduction in the selection probability of the first selected item of media corresponds to an extent to which the amount of time that lapses is less than the duration associated with the first selected item of media.

56. The computer program product of claim 39, wherein the probability of the first selected item of media being selected again is increased if the amount of time that lapses is not less than the duration associated with the first selected item of media.

57. The computer program product of claim 39, wherein the first amount is inversely proportional to a number of times the selection probability of the first selected item of media.

58. The computer program product of claim 39, wherein the media selection module includes instructions to maintain in said media related data a list including each selected item of said media for which the amount of time that lapses between a selection of said each selected item of said media and a subsequent selection of an item of said media is not less than the duration associated with said each selected item of said media;

the media selection module includes instructions to:

access the list when the amount of time that lapses is not less than the duration associated with the first selected item of media; and

select an item of said media, other than the first selected item of media, from the list.

1 59. The computer program product of claim 37, wherein
2 the media selection module includes instructions to maintain in said media related
3 data a preferred media list including each selected item of said media meeting predefined
4 selection criteria;

5 the media selection module includes instructions to:
6 access the preferred media list when predefined preferred media mode
7 selection criteria are satisfied; and
8 select an item of said media from the preferred media list.

1 60. The computer program product of claim 37, wherein the media selection module
2 includes instructions to:

3 sum the selection probabilities for all items of media;
4 generate a random number, said random number falling between first and second
5 values whose difference corresponds to the sum of the selection probabilities for all items of
6 media;

7 repeat the following steps until an item of said media is selected:
8 add the selection probability for an item of said media to a second sum
9 initialized to the first value;
10 compare the second sum to the random number; and
11 select the item of said media if the second sum exceeds the random number.

1 61. The computer program product of claim 37, wherein the media selection module
2 includes instructions to:

3 map the items of media to a probability density function, each respective item of
4 media being mapped to a respective interval of said probability density function;
5 generate a random number;
6 determine an interval on said probability density function corresponding the random
7 number, and determining the item of media corresponding to the determined interval.

1 62. The computer program product of claim 37, wherein the media selection module
2 includes instructions to utilize a media item selection list for an initial selection of an item of
3 said media.

1 63. The computer program product of claim 37, wherein the media selection module
2 includes instructions to delete from the storage unit an item of said media for which a
3 probability of a being selected is below a predefined threshold.

1 64. The computer program product of claim 37, wherein the media selection module
2 includes instructions to store a list of recently selected items of media and to select an item of
media that is not included in the list of recently selected items of media.

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